

## ABSTRACT

A method for performing multiplication on a field programmable gate array includes generating a product by multiplying a first plurality of bits from a first number and a first plurality of bits from a second number. A stored value designated as a product of a second plurality of bits from the first number and a second plurality of bits from the second number is retrieved. The product is scaled with respect to a position of the first plurality of bits from the first number and a position of the first plurality of bits from the second number. The stored value is scaled with respect to a position of the second plurality of bits from the second number and a position of the second plurality of bits from the second number. The scaled product and the scaled stored value are summed